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```

(2)	52	HISTORY	; Detailed Current Edit History
(3)	63	DECLARATIONS	
(4)	94	MTH\$HMIN1	

```
0000 1      .TITLE MTH$HMIN1      HMIN1 function
0000 2      .IDENT /1-002/        ; File: MTHHMIN1.MAR  EDIT: JCW1002
0000 3
0000 4
0000 5 :*****
0000 6 :*
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0000 23 :*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24 :*
0000 25 :*****
0000 26 :*****
0000 27 :
0000 28 :
0000 29 : FACILITY: MATH LIBRARY
0000 30 :++
0000 31 : ABSTRACT:
0000 32 :   This module contains routine MTH$HMIN1:
0000 33 :   Return the smaller of n H floating-point
0000 34 :   numbers.
0000 35 :
0000 36 :
0000 37 :
0000 38 :--
0000 39 :
0000 40 : VERSION: 1
0000 41 :
0000 42 : HISTORY:
0000 43 :
0000 44 : AUTHOR:
0000 45 :   Steven B. Lionel, 18-Jan-79: Version 1
0000 46 :
0000 47 : MODIFIED BY:
0000 48 :
0000 49 :   Jeffrey C. Wiener, 14-May-84: Version 1
0000 50 :
```

MTH\$HMIN1
1-002

H 4
HMIN1 function
HISTORY ; Detailed Current Edit History

16-SEP-1984 01:37:37 VAX/VMS Macro V04-00
6-SEP-1984 11:25:11 [MTHRTL.SRC]MTHHMIN1.MAR;1

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0000 52 .SBTTL HISTORY ; Detailed Current Edit History
0000 53
0000 54
0000 55 ; Edit History for Version 1 of MTH\$HMIN1
0000 56 :
0000 57 : 1-001 - Original. SBL 18-Jan-79
0000 58 : 1-002 - The code as written did not work. Corrections were made to one AP
0000 59 : reference, all G_floating references were replaced by H_floating
0000 60 : references, BLSS was changed to BLEQ and some comments were fixed.
0000 61 : JCW 14-May-1984

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MTH\$HMIN1
1-002

HMIN1 function
DECLARATIONS

I 4

16-SEP-1984 01:37:37
6-SEP-1984 11:25:11

VAX/VMS Macro V04-00
[MTHRTL.SRC]MTHHMIN1.MAR;1

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```
0000 63      .SBTTL DECLARATIONS
0000 64
0000 65 :
0000 66 : INCLUDE FILES:
0000 67 :     NONE
0000 68 :
0000 69 :
0000 70 :
0000 71 : EXTERNAL SYMBOLS:
0000 72 :     NONE
0000 73 :
0000 74 :
0000 75 :
0000 76 : MACROS:
0000 77 :     NONE
0000 78 :
0000 79 :
0000 80 :
0000 81 : PSECT DECLARATIONS:
0000 82 :     .PSECT _MTH$CODE      PIC, SHR, LONG, EXE, NOWRT
0000 83 :
0000 84 :
0000 85 : EQUATED SYMBOLS:
0000 86 :     NONE
0000 87 :
0000 88 :
0000 89 :
0000 90 : OWN STORAGE:
0000 91 :     NONE
0000 92 :
```

```
0000 94 .SBTTL MTH$HMIN1
0000 95
0000 96 :++
0000 97 FUNCTIONAL DESCRIPTION:
0000 98 Return the minimum of n arguments, n is greater than or equal
0000 99 to 1.
0000 100
0000 101 Because the result can not be represented in 64 bits, the
0000 102 minimum of arguments 2 through n are returned as argument 1.
0000 103
0000 104 CALLING SEQUENCE:
0000 105 CALL MTH$HMIN1 (minimum.wh.r, {arg.rh.r})
0000 106
0000 107
0000 108
0000 109 INPUT PARAMETERS:
0000 110 The n parameters are H floating point values
0000 111 and are call-by-reference.
0000 112
0000 113
0000 114 IMPLICIT INPUTS:
0000 115 NONE
0000 116
0000 117 OUTPUT PARAMETERS:
0000 118 The H floating output parameter is returned by reference.
0000 119
0000 120 IMPLICIT OUTPUTS:
0000 121 NONE
0000 122
0000 123 COMPLETION CODES:
0000 124 NONE
0000 125
0000 126 SIDE EFFECTS:
0000 127 Reserved Operand exception can occur.
0000 128
0000 129
0000 130 :--
0000 131
0000 132 .ENTRY MTH$HMIN1, ^M<>
51 6C 9A 0002 133 MOVZBL (AP), R1 ; R1 = arg count
51 51 D7 0005 134 DECL R1 ; R1 = the actual number of parameters
8C D5 0007 135 TSTL (AP)+ ; bump AP by 4
50 6C D0 0009 136 MOVL (AP), R0 ; save result address
8C D5 000C 137 TSTL (AP)+ ; AP -> first arg
60 9C 70FD 000E 138 1$: MOVH @ (AP)+, (R0) ; (R0) = trial min
09 11 0012 139 BRB 3$ ; check arg count
60 00 BC 71FD 0014 140 2$: CMPL @ (AP), (R0) ; if this arg is less than trial min
F3 15 0019 141 BLEQ 1$ ; then it becomes new trial min
8C D5 001B 142 TSTL (AP)+ ; else ignore it
F4 51 F5 001D 143 3$: SOBGTR R1, 2$ ; return if arg count exhausted
04 0020 144 RET ; with min in first arg
0021 145
0021 146
0021 147 .END
```

MTH\$HMIN1
Symbol table

HMIN1 function

K 4

16-SEP-1984 01:37:37
6-SEP-1984 11:25:11

VAX/VMS Macro V04-00
[MTHRTL.SRC]MTHHMIN1.MAR;1

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MTH\$HMIN1 00000000 RG 01

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR
MTH\$CODE	00000021 (33.)	01 (1.)	PIC USR

CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE
CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	LONG

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	32	00:00:00.11	00:00:00.77
Command processing	103	00:00:00.50	00:00:03.18
Pass 1	66	00:00:00.45	00:00:02.25
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	40	00:00:00.34	00:00:01.61
Symbol table output	1	00:00:00.01	00:00:00.01
Psect synopsis output	2	00:00:00.02	00:00:00.01
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	246	00:00:01.43	00:00:07.84

The working set limit was 750 pages.
1513 bytes (3 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 1 non-local and 3 local symbols.
147 source lines were read in Pass 1, producing 10 object records in Pass 2.
0 pages of virtual memory were used to define 0 macros.

+-----+
! Macro library statistics !
+-----+

Macro library name	Macros defined
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:MTHHMIN1/OBJ=OBJ\$:MTHHMIN1 MSRC\$:MTHHMIN1/UPDATE=(ENH\$:MTHHMIN1)

0262 AH-BT13A-SE
VAX/VMS V4.0

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